

What is claimed is:

1. A method for preparing a solution having disinfectant properties which comprises the steps in operable order:

(a) Selecting one of a metal, a metal hydride a metal oxide and a metal hydroxide and an acid having an anion capable of forming an insoluble salt with said metal;

(b) mixing a gram molar quantity of said acid in water;

(c) Stirring into said acid in water an equivalent of said gram molar quantity of said metal in one of said metal, metal hydride, metal oxide and metal hydroxide;

(d) Passing the resultant solution of step (c) through a filter to remove precipitates of salt formed by said metal and said acid.

2. The method of claim 1 wherein said step (a) includes the step:  
selecting said metal to be calcium and said acid to be sulfuric acid.

3. A solution consisting essentially of less than 2500 parts per million of calcium sulfate, and a pH of less than 2.5.

4. A solution consisting essentially of less than 2500 parts per million of calcium sulfate, sufficient hydronium ions to provide a pH of less than 2.5 wherein pH of less than 2.5 is maintained for longer than 48 hours..

5. A method for preparing a solution having a pH of less than 2.5, and less than 2500 parts per million of calcium sulfate which comprises the steps in operable combination of:

- (a) forming a solution of one mole  $\text{H}_2\text{SO}_4$  per one liter of water;
- (b) stirring into said solution of step (a) one Gram Equivalent Weight of one of  $\text{CaH}_2$ ,  $\text{Ca}$ ,  $\text{CaO}$ ,  $\text{Ca}(\text{OH})_2$  per one mole of  $\text{H}_2\text{SO}_4$
- (c) filtering the solution of step (b) through an eleven micron filter;
- (d) allowing the solution of step (c) to digest for at least 10 hours ;
- (e) filtering the solution of step (d) through a two micron filter.

6. A method for treating an infected area of a human which includes the steps:

- (a) forming a solution of one mole  $\text{H}_2\text{SO}_4$  per one liter of water;
- (b) stirring into said solution of step (a) one Gram Equivalent Weight of one of  $\text{CaH}_2$ ,  $\text{Ca}$ ,  $\text{Ca}(\text{OH})_2$ ,  $\text{CaO}$  per one mole of  $\text{H}_2\text{SO}_4$
- (c) filtering the solution of step (b) through an eleven micron filter;
- (d) allowing the solution of step (c) to digest for at least 10 hours ;

(e) filtering the solution of step (d) through a two micron filter providing a disinfecting solution consisting of less than 2500 ppm  $\text{Ca}^{++}$  and  $\text{SO}_4^{--}$  and a pH less than 2.5 that is stable longer than 48 hours;

(f) applying said disinfecting solution to said infected area

7, An antiseptic solution for sterilizing a surface of skin of a human which comprises:

water;

said solution of claim 1 added to said water in sufficient concentration to reduce pH to below 2.5;

at least one of oxalic acid, lactic acid and quaternary ammonium;

a metal salt selected to have a bactericidal characteristic;

a carrier for retaining said metal salt and said at least one of oxalic acid, lactic acid and quaternary ammonium chloride in a film of said carrier;

an organic solvent;

said organic solvent selected in sufficient concentration to one of emulsify and dissolve said carrier and selected to have a vapor pressure that is substantially greater than a vapor pressure of said carrier whereby a film of said carrier retaining said metal salt and said at least one of oxalic acid and lactic acid and said quaternary ammonium compound is left as an antiseptic residue after said organic solvent and water have evaporated.

8. The antiseptic solution of claim 7 wherein said organic solvent is at least one of ethanol and isopropanol.

9. The antiseptic solution of claim 7 wherein the content of said lactic acid in said antiseptic solution is selected from a range between 0.01 and 20 percent by volume.

10. The antiseptic solution of claim 7 wherein the content of said oxalic acid in said antiseptic solution is selected from a range between 0.01 and 20 percent by volume.

11. The antiseptic solution of claim 7 wherein the content of said metal salt in said antiseptic solution is selected from a range between 0.01 and 20 percent by volume.

12. The antiseptic solution of claim 7 wherein the content of said quaternary ammonium compound in said antiseptic solution is selected from a range between 0.01 and 20 percent by volume. .

13. The composition of claim 7 wherein said quaternary ammonium compound is selected from a group of compounds that consists of diethyl benzyl ammonium chloride, benzalkonium chloride, diethyl dodecyl benzyl ammonium chloride, dimethyl didodecyl ammonium chloride, octadecyl dimethyl benzyl ammonium chloride, trimethyl tetradecyl ammonium chloride, trimethyl octadecyl ammonium chloride, trimethyl hexadecyl ammonium chloride, Alkyl dimethyl benzyl ammonium chloride, cetyl pyridinium bromide, cetyl pyridinium chloride, dodecylpyridinium chloride, and benzyl dodecyl bis(B-hydroxyethyl ammonium chloride).

14. The antiseptic solution of claim 7 wherein a pH of said solution is adjusted to a value in a range between 15 and 1.8 by additions of the solution of claim 1.

15. The antiseptic solution of claim 7 wherein a metal of said metal salt is selected from a group of metals identified as I(A,B), II(A,B) III (A), IV (A, B), VI B, VII rare earth compounds and combinations thereof.

16. The composition of claim 7 wherein a metal of said metal salt is selected from a group of metals that consists of calcium, magnesium, tin, iron, copper, silver, .

17. The composition of claim 7 wherein said metal salt is a combination of metal salts and each metal of said combination is selected from a group of metals that consists of calcium, magnesium, tin, iron, copper, silver.

18. The antiseptic solution of claim 7 wherein said metal salt is selected from a group of metal salts which consists of at least one of copper sulfate, copper chloride, copper nitrate, copper acetate, copper bromide, copper iodide.

19 The antiseptic solution of claim 7 wherein said metal salt is selected from a group of metal salts which consists of at least one of tin chloride, tin nitrate, tin acetate, tin bromide, tin iodide.

20. The antiseptic solution of claim 7 wherein said metal salt is selected from a group of metal salts which consists of at least one of iron chloride, iron nitrate, iron acetate, iron bromide, iron iodide.

21, The antiseptic solution of claim 7 wherein said metal salt is selected from a group of metal salts which consists of at least one of calcium chloride, iron nitrate, iron acetate, iron bromide, iron iodide.

22, The antiseptic solution of claim 7 wherein said metal salt is selected from a group of metal salts which consists of at least one of magnesium chloride, magnesium nitrate,

Magnesium acetate, magnesium bromide, magnesium iodide.

23. The antiseptic solution of claim 7 wherein said carrier is mineral oil.

24. The antiseptic solution of claim 7 wherein said carrier is glycerine.

25 The antiseptic solution of claim 7 which further comprises a fragrance.

26. The antiseptic solution of claim 25 wherein said fragrance is vanilla extract in alcohol.

27. The antiseptic solution of claim 25 wherein said fragrance is eucalyptus oil.